

(November 16, 2001 Draft)
California Regional Water Quality Control Board
Santa Ana Region
3737 Main Street, Suite 500
Riverside, CA 92501- 3348

FACT SHEET

December 7, 2001 (Board Meeting date)

ITEM:

SUBJECT: Waste Discharge Requirements for the San Bernardino County Flood Control District (SBCFCD), the County of San Bernardino, and the Incorporated Cities of San Bernardino County within the Santa Ana Region, Storm Water Runoff Management Program, San Bernardino County, Order No. 01-16 (NPDES No. CAS618036)

I. INTRODUCTION

The 1972 Clean Water Act (CWA) established the National Pollutant Discharge Elimination System (NPDES) permit program to regulate the discharge of pollutants from point sources to waters of the United States (U.S.). Since then, considerable strides have been made in reducing conventional forms of pollution, such as from sewage treatment plants and industrial facilities, through the implementation of the NPDES program and other federal, state and local programs. The adverse effects from some of the persistent toxic pollutants (DDT, PCB, TBT) were addressed through manufacturing and use restrictions and through cleanup of contaminated sites. On the other hand, pollution from land runoff (including atmospheric deposition, urban, suburban and agricultural) was largely unabated until the 1987 CWA amendments. As a result, diffuse sources, including urban storm water runoff, now contribute a larger portion of many kinds of pollutants than the more thoroughly regulated sewage treatment plants and industrial facilities. The 1987 CWA amendments established a framework for regulating urban storm water runoff. Pursuant to these amendments, the Santa Ana Regional Water Quality Control Board (Regional Board) started regulating municipal storm water runoff in 1990.

The attached pages contain information concerning an application for renewal of waste discharge requirements and a National Pollutant Discharge Elimination System (NPDES) permit. Order No. 01-16, NPDES No. CAS618036, prescribes waste discharge requirements for urban storm water runoff from the cities and the unincorporated areas in San Bernardino County within the jurisdiction of the Santa Ana Regional Board. On September 1, 2000, the San Bernardino County Flood Control District (SBCFCD) and the County of San Bernardino, in cooperation with the cities of Big Bear Lake, Chino, Chino Hills, Colton, Fontana, Grand Terrace, Highland, Loma Linda, Montclair, Ontario, Rancho Cucamonga, Redlands, Rialto, San Bernardino, Upland, and Yucaipa (hereinafter collectively referred to as permittees or dischargers), submitted NPDES Application No. CAS618036 (Report of Waste Discharge) for reissuance of their area-wide NPDES storm water permit. The permit renewal application was submitted in accordance with the requirements specified in the previous

NPDES storm water permit (Order No. 96-32, NPDES No. CA 618036) which expired on March 1, 2001. The permit application also follows guidance provided by the staff of the State Water Resources Control Board (State Board) and the Regional Water Quality Control Boards (Regional Boards).

On March 2, 2001, Order No. 96-32, NPDES No. CAS 618036, was administratively extended in accordance with 40 CFR Part 122.6 and Title 23, Division 3, Chapter 9, §2235.4 of the California Code of Regulations.

Order No. 01-16 regulates discharges of urban storm water from the upper Santa Ana watershed to waters of the U.S., ultimately draining to the Pacific Ocean.

II. REGULATORY BACKGROUND/CLEAN WATER ACT REQUIREMENTS

Urban runoff includes dry and wet weather flows from urbanized areas through a storm water conveyance system. As water flows over streets, parking lots, construction sites, and industrial, commercial, residential, and municipal areas, it can intercept pollutants from these areas and transport them to waters of the U.S. Urban runoff may contain pathogens (bacteria, viruses, protozoa), sediment, trash, fertilizers (nutrients, mostly compounds of nitrogen and phosphorus), oxygen-demanding substances (decaying and/or decomposable matter), pesticides (DDT, chlordane, diazinon, chlorpyrifos) heavy metals (cadmium, copper, chromium, lead, zinc), and petroleum products (oil & grease, PAHs, petroleum products). If not properly managed and controlled, urbanization can change the stream hydrology and increase pollutant loading to receiving waters. As watershed undergoes urbanization, pervious surface area decreases, runoff volume and velocity increase, riparian habitats and wetland habitat decrease, frequency and severity of flooding increase, and pollutant loading increases. Most of these impacts occur due to human activities that occur during and/or after urbanization. The pollutants and hydrologic changes can cause declines in aquatic resources, cause toxicity to marine organisms, and impact human health and the environment.

The United States Environmental Protection Agency (U.S. EPA) recognizes urban runoff as the number one source of estuarine pollution in coastal communities¹. Recent studies² conducted in the Southern California area have established a definite link between storm water runoff from urban areas and pollution in nearshore zones. A number of Orange County beaches were closed during the summer of 1999 and 2000 due to microbial contamination. The discharges from the San Bernardino areas ultimately drain into the Pacific Ocean and can have an impact on Orange County beaches. If not properly controlled, urban runoff could be a significant source of pollutants in waters of the US. Table 1 includes a list of pollutants and their sources in urban runoff and lists some of the adverse impacts these pollutants could have on receiving waters.

¹ US EPA, 1999, 40CFR Parts 9, 122, 123, 124, National Pollutant Discharge Elimination System – Regulations for Revision of the Water Pollution Control Program Addressing Storm Water Discharges; Final Rule, 64FR 68727.

² Bay, S., Jones, B. H. and Schiff, K, 1999, Study of the Impact of Storm water Discharge on Santa Monica Bay. Sea Grant Program, University of Southern California; and Haile, R.W., et. al., 1996, An Epidemiological Study of Possible Adverse Health Effects of Swimming in Santa Monica Bay.

Table 1³
Pollutants/Impacts of Urbanization (Marine Pollution)

Pollutants	Sources	Effects and Trends
Toxins (e.g., biocides, PCBs, trace metals, heavy metals)	Industrial and municipal wastewaters; runoff from farms, forests, urban areas, and landfills; erosion of contaminated soils and sediments; vessels; atmospheric deposition	Poison and cause disease and reproductive failure; fat-soluble toxins may bioconcentrate, particularly in birds and mammals, and pose human health risks. Inputs into U.S. waters have declined, but remaining inputs and contaminated sediments in urban and industrial areas pose threats to living resources.
Pesticides (DDT, diazinon, chlorpyrifos)	Urban runoff; residential, commercial, industrial, and farm use; agricultural runoff	Legacy pesticides (DDT, chlordane, dieldrin) have been banned; still persists in the environment; some of the other pesticide uses have been curtailed or restricted.
Biostimulants (organic wastes, plant nutrients)	Sewage and industrial wastes; runoff from farms and urban areas; nitrogen from combustion of fossil fuels	Organic wastes overload bottom habitats and deplete oxygen; nutrient inputs stimulate algal blooms (some harmful), which reduce water clarity, cause loss of seagrass and coral reef, and alter food chains supporting fisheries. While organic waste loadings have decreased, nutrient loadings have increased (NRC, 1993a, 2000a).
Petroleum products (oil, grease, petroleum hydrocarbons, PAHs)	Runoff and atmospheric deposition from land activities; shipping and tanker operations; accidental spills; coastal and offshore oil gas production activities; natural seepage; PAHs from internal combustion engines	Petroleum hydrocarbons can affect bottom organisms and larvae; spills affect birds, mammals and nearshore marine life. While oil pollution from ships, accidental spills, and production activities has decreased, diffuse inputs from land-based activities have not (NRC, 1985).
Radioactive isotopes	Atmospheric fallout, industrial and military activities	Few known effects on marine life; bioaccumulation may pose human health risks where contamination is heavy.
Sediments	Erosion from farming, construction activities, forestry, mining, development; river diversions; coastal dredging and mining	Reduce water clarity and change bottom habitats; carry toxins and nutrients; clog fish gills and interfere with respiration in aquatic fauna. Sediment delivery by many rivers has decreased, but sedimentation poses problems in some areas; erosion from coastal development and sea-level rise is a future concern.
Plastics and other debris	Ships, fishing nets, containers, trash, urban runoff	Entangles marine life or is ingested; degrades beaches, wetlands and nearshore habitats. Floatables (from trash) are an aesthetic nuisance and can be a substrate for algae and insect vectors.
Thermal	Cooling water from power plants and industry, urban runoff from impervious surfaces	Kills some temperature-sensitive species; displaces others. Generally, less a risk to marine life than thought 20 years ago.
Noise	Vessel propulsion, sonar, seismic prospecting, low-frequency sound used in defense and research	May disturb marine mammals and other organisms that use sound for communication.
Pathogens (bacteria, protozoa, viruses)	Sewage, urban runoff, livestock, wildlife, discharges from boats and cruise ships	Pose health risks to swimmers and consumers of seafood. Sanitation has improved, but standards have been raised (NRC 1999a).
Alien species	Ships and ballast water, fishery stocking, aquarists	Displace native species, introduce new diseases; growing worldwide problem (NRC 1996).

³ Adapted from "Marine Pollution in the United States" prepared for the Pew Oceans Commission, 2001.

The Clean Water Act (CWA) prohibits the discharge of any pollutant to navigable waters from a point source unless an NPDES permit authorizes the discharge. Efforts to improve water quality under the NPDES program traditionally and primarily focused on reducing pollutants in discharges of industrial process wastewater and municipal sewage. The 1987 amendments to the CWA required municipal separate storm sewer systems (MS4s) and industrial facilities, including construction sites, to obtain NPDES permits for storm water runoff from their facilities. On November 16, 1990, the United States Environmental Protection Agency (EPA) promulgated the final Phase I storm water regulations. The storm water regulations are contained in 40 CFR Parts 122, 123 and 124.

The areawide NPDES permit for San Bernardino County areas within the Santa Ana Regional Board's jurisdiction is being considered for renewal in accordance with Section 402 (p) of the CWA and all requirements applicable to an NPDES permit issued under the issuing authority's discretionary authority. The requirements included in this order are consistent with the CWA, the federal regulations governing urban storm water discharges, the Water Quality Control Plan for the Santa Ana River Basin (Basin Plan), the California Water Code, and the State Board's Plans and Policies.

The Basin Plan is the basis for the Regional Board's regulatory programs. The Plan was developed and is periodically reviewed and updated in accordance with relevant federal and state law and regulation, including the Clean Water Act and the California Water Code. As required, the Basin Plan designates the beneficial uses of the waters of the Region and specifies water quality objectives intended to protect those uses. (Beneficial uses and water quality objectives, together with an antidegradation policy, comprise federal "water quality standards"). The Basin Plan also specifies an implementation plan, which includes certain discharge prohibitions. In general, the Basin Plan makes no distinctions between wet and dry weather conditions in designating beneficial uses and setting water quality objectives, i.e., the beneficial uses, and correspondingly, the water quality objectives are assumed to apply year-round. (Note: In some cases, beneficial uses for certain surface waters are designated as "I", or intermittent, in recognition of the fact that surface flows (and beneficial uses) may be present only during wet weather.) Most beneficial uses and water quality objectives were established in the 1971, 1975 and 1983 Basin Plans.

Water Code Section 13241 requires that certain factors be considered, at a minimum, when water quality objectives are established. These include economics and the need for developing housing in the Region. (The latter factor was added to the Water Code in 1987). During this permit development process, the permittees raised an issue regarding compliance with Section 13241 of the California Water Code with respect to water quality objectives for wet weather conditions, specifically the cost of achieving compliance during wet weather conditions and the need for developing housing within the Region and its impact on urban storm water runoff. During the next review of the Basin Plan, staff will recommend that this matter be incorporated on the triennial review list. In the meantime, the provisions of this order will result in reasonable further progress towards the attainment of the existing water quality objectives, in accordance with the discretion in the permitting authority recognized by the United States Court of Appeals for the Ninth Circuit in *Defenders of Wildlife v Browner*, 191 F.3d 1159, 1164 (9th Cir. 1999).

III. BENEFICIAL USES

Storm water flows which are discharged to municipal storm drain systems in San Bernardino County are tributary to various water bodies (inland surface streams, lakes and reservoirs) of the state. The beneficial uses of these water bodies include municipal and domestic supply, agricultural supply, industrial service and process supply, groundwater recharge, hydropower generation, water contact recreation, non-contact water recreation, and sportfishing, warm freshwater habitat, cold freshwater habitat, preservation of biological habitats of special significance, wildlife habitat and preservation of rare, threatened or endangered species. The ultimate goal of this storm water management program is to protect the beneficial uses of the receiving waters.

IV. PROJECT AREA

The permitted area is delineated by the Santa Ana-Lahontan Regional Board boundary line on the north and northeast, the Santa Ana-Colorado River Basin Regional Board boundary line on the east, the San Bernardino-Riverside County boundary line on the south and southeast, the San Bernardino-Orange County boundary line on the southwest, and the San Bernardino-Los Angeles County boundary line on the west (see Attachment 1). The permittees serve a population of approximately 1.33 million, occupying an area of approximately 985 square miles. The latest figures estimated 384 miles of aboveground and 334 miles of below ground storm drain channels in the project area. Approximately seven percent (7%) of the San Bernardino County area drains into water bodies within this Regional Board's jurisdiction. Storm water discharges from urbanized areas consist mainly of surface runoff from residential, commercial and industrial developments. In addition, there are storm water discharges from agricultural land uses, including farming and animal feeding operations. However, the CWA specifically excludes discharges from agricultural sources from regulations under this program. Areas of the County not addressed or which are excluded under the storm water regulations and areas not under the jurisdiction of the permittees are excluded from coverage under this permit. These areas or activities include the following:

- Federal lands and state properties, including, but not limited to, military bases, national forests, hospitals, schools, colleges and universities, and highways;
- Native American tribal lands;
- Open space and rural (non-urbanized) areas;
- Agricultural lands; and
- Utilities and special districts.

Discharges from the project area drain into the Santa Ana River. The watershed regulated under this order is generally referred to as the Upper Santa Ana River Basin.

V. WATERSHED MANAGEMENT/UPPER SANTA ANA RIVER BASIN

To regulate and control storm water discharges from the San Bernardino County area to the San Bernardino County storm drain systems, an area-wide approach is essential. The entire storm drain system in San Bernardino County is not controlled by a single entity; the SBCFCD, several cities, and the State Department of Transportation

(Caltrans) manage the system. In addition to the cities and the SBCFCD, there are a number of other significant contributors of urban storm water runoff to these storm drain systems. These include: large institutions such as the State University system; schools; hospitals; federal facilities such as military installations; State agencies such as Caltrans; water and wastewater management agencies such as San Bernardino Valley Municipal Water District and Inland Empire Utilities Agency; the National Forest Service; and state parks. The management and control of the entire flood control system cannot be effectively carried out without the cooperation and efforts of all these entities. Also, it would not be meaningful to issue a separate storm water permit to each of the entities within the permitted area whose land/facilities drain into the county storm drain systems. The Regional Board has concluded that the best management option for the San Bernardino County area is to issue an area-wide storm water permit. Some of the storm drain systems in the project area discharge into storm drain systems controlled by other entities, such as the County of Riverside, the County of Orange, and the County of Los Angeles.

Cooperation and coordination among all the stakeholders are essential for efficient and economical management of the watershed. It is also critical to manage non-point sources at a level consistent with the management of urban storm water runoff in a watershed in order to successfully prevent or remedy water quality impairment. Regional Board staff will facilitate coordination of monitoring and management programs among the various stakeholders, when necessary.

An integrated watershed management approach is consistent with the Strategic Plan and Initiatives (June 22, 1995) for the State and Regional Boards. A watershed wide approach is also necessary for implementation of the load and waste load allocations to be developed under the TMDL process. The MS4 permittees and all the affected entities should be encouraged to participate in regional or watershed solutions instead of project-specific and fragmented solutions.

The pollutants in urban runoff originate from a multitude of sources and effective control of these pollutants requires a cooperative effort of all the stakeholders and many regulatory agencies. Every stage of urbanization should be considered in developing appropriate urban runoff pollution control methodologies. The program's success depends upon consideration of pollution control techniques during planning, construction and post-construction operations. At each stage, appropriate pollution prevention measures, source control measures, and, if necessary, treatment techniques should be considered.

A. SUB-WATERSHEDS AND MAJOR CHALLENGES

The Santa Ana River Watershed in San Bernardino County can be subdivided into the following sub-watersheds:

1. UPPER SANTA ANA RIVER WATERSHED

The Upper Santa Ana River Watershed includes the upper reaches of the Santa Ana River (Reaches 4, 5 and 6) and its tributaries.

- a. Reach 4 of the Santa Ana River: Reach 4 of the Santa Ana River is the portion of the River from Mission Boulevard bridge in Riverside to the San Jacinto fault (Bunker Hill Dike) in San Bernardino. There is perennial flow in this reach of the River, mostly from the upstream

discharges of treated municipal wastewater. Much of this reach is also operated as a flood control facility. This reach of the River is posted to warn against water contact recreation due to microbial problems. The wastewater discharges from the sewage treatment plants to this reach of the River are tertiary treated and are not expected to be sources of microbial contamination. Preliminary studies indicate that the dry weather urban runoff discharges to this reach of the River may not be causing or contributing to the microbial contamination. This order requires the permittees to investigate other sources, such as the transient population living along this stretch of the River, wild life, etc., and storm water and dry weather urban runoff to determine the cause of microbial contamination along Reach 4 of the River. Lytle Creek and Cajon Creek are the other major tributaries to this reach of the River.

- b. Other major problems along this reach of the River include the buildup of total dissolved solids (TDS, dissolved salts or minerals) and nitrogen, largely in nitrate form. The buildup of TDS and nitrates can impact downstream beneficial uses, including reclamation. The buildup of TDS and nitrate is mostly due to agricultural uses including dairies and the application of fertilizers, municipal and industrial wastewater discharges, and reuse and recycling operations. A complex set of programs and policies are included in the Basin Plan to address this problem including water supply plan, wastewater management plan, and groundwater management plan. Other elements of this plan include non-point source program and storm water program. The Basin Plan identifies the Statewide General Permits and the MS4 permits as the regulatory tools for storm water management in the Basin.

Reach 5 of the Santa Ana River: This reach of the River extends from the Seven Oaks Dam to the San Jacinto Fault in San Bernardino. Most of this reach of the River is operated as a flood control facility and is dry except for storm flows. Major tributaries to this reach include San Timoteo Creek, City Creek, Plunge Creek, and Warm Creek. These tributaries are usually dry except for the discharge of treated wastewater from Yucaipa Valley Water District to San Timoteo Creek and City of Beaumont to Coopers Creek (a tributary to San Timoteo Creek). These wastewater discharges flow for a short distance and percolate into the ground. No major water quality problems have been identified in this stretch of the River or its tributaries.

- c. Reach 6 of the Santa Ana River: This reach includes the River upstream of Seven Oaks Dam. Major tributaries include Bear Creek, Forsee Creek, and Rattlesnake Creek. Flows consist mostly of snowmelt and storm water runoff. Water quality in this reach of the River tends to be very high.

2. CHINO BASIN WATERSHED

The Chino Basin Watershed covers about 405 square miles and lies largely in the southwestern corner of San Bernardino County, and part of western Riverside County. This permit only covers those portions of the watershed that are within San Bernardino County under the jurisdiction of this Board. Surface drainage is generally southward, from the San Gabriel Mountains toward the Santa Ana River and Prado Flood Control Basin. Major surface waterbodies in the Chino Basin Watershed include:

- San Antonio Creek
- Chino Creek
- Cucamonga Creek
- Day Creek, and
- Deer Creek

Although it was originally developed as an irrigated agricultural area, and then into dairies, the watershed is being steadily urbanized. The municipalities under this permit in the Chino Basin Watershed include Chino, Chino Hills, Fontana, Montclair, Ontario, Rancho Cucamonga, Rialto, and Upland. Until very recently, the Chino-Corona Agricultural Preserve had the highest concentration of dairy animals in the nation. The ground and surface water quality in the area have been adversely impacted by the dairy operations in the area.

The dairies within the Region are regulated under the Board's General Dairy Permit, Order No. 99-11, NPDES No. CAG018001. The General Dairy Permit allows discharge of storm water from dairies only for storms exceeding a 24-hour 25-year frequency. The area lacks appropriate flood control facilities. During heavy storm events, some of the dairies in the area are inundated and the detention ponds overflow. This overflow causes nutrient, TDS, TSS, and microbial problems in the receiving waters. The San Bernardino and Riverside County Flood Control Districts, in cooperation with local municipalities, are coordinating an effort to construct flood control facilities in the area.

Groundwater problems (mostly TDS and nitrate) in the Chino Basin Watershed are being addressed through a comprehensive watershed management plan. As part of this plan, desalters are being developed to pump and treat contaminated groundwater in the southern part of Chino Basin. One desalter has been built and a second one is being designed. A co-composting facility owned by the Inland Empire Utilities Agency accepts manure from Chino Basin dairies. The co-composting facility is required to distribute the products outside of the Chino Basin Watershed to reduce the re-introduction of TDS and nutrients to this watershed from the land application of the composted product.

3. BIG BEAR LAKE WATERSHED

The Big Bear Lake watershed is located in the San Bernardino Mountains. Major waterbodies in this watershed include:

- Big Bear Lake
- Baldwin Lake (currently a dry lakebed)
- Stanfield Marsh
- Shay Meadows
- Rathbone (Rathbun) Creek
- Summit Creek
- Grout Creek

Big Bear Lake is a high mountain reservoir occupying a relatively small, east to west oriented basin. The basin supports a large number of recreational activities. Lake recreational activities include fishing, swimming, boating and water skiing. Areas adjacent to the lake are used for camping, skiing, hiking, equestrian trails and other outdoor activities. Water in the Lake is also used for municipal supplies. A number of water quality problems have been identified for the Lake.

The 1998 303(d) list designated the following waterbodies in this sub-watershed as impaired: Big Bear Lake (nutrients, copper, mercury and siltation); Grout Creek (metals and nutrients); Knickerbocker Creek (metals and pathogens); Summit Creek (nutrients); and Rathbone Creek (nutrients and siltation). The problem pollutants have been identified as coming from resource extraction activities, urban runoff, snow skiing activities, construction and land developments, and non-point sources. In conjunction with local stakeholders, work is underway to develop TMDLs for these pollutants. The TMDLs are expected to be complete by 2004/2005.

B. CWA SECTION 303(D) LIST AND TMDLS:

Pursuant to Section 303(b) of the CWA, the 1998 water quality assessment conducted by the Regional Board listed a number of water bodies within the Region under Section 303(d) of the CWA as impaired waterbodies. These are waterbodies where the designated beneficial uses are not met and the water quality objectives are being violated. The impaired waterbodies in San Bernardino County within the Santa Ana Regional Board's jurisdiction are listed in Table 2 and shown on Attachment 1 of the permit.

Table 2

Clean Water Act Section 303(d) Listed Waterbodies & TMDL Schedule

Waterbody	Hydro Unit	Size Affected	Pollutant Stressor	Source	Priorit y	TMDL Schedule	Permittees
Big Bear Lake	801.710	2970 acres 2970 acres 2970 acres 2970 acres 2970 acres 2970 acres 2970 acres	Copper Mercury Metals Noxious aquatic plants Nutrients Sedimentation/Siltation	Resource Extraction Resource Extraction Resource Extraction Construction/Land development Construction/Land development Snow Skiing Activities Construction/Land development Snow Skiing Activities	Medium Medium Medium Medium Medium Medium Medium	01/02 – 01/05	City of Big Bear Lake County of San Bernardino
Summit Creek	801.710	1 mile	Nutrients	Construction/Land Development	Medium	01/02 – 01/05	City of Big Bear Lake County of San Bernardino
Knickerbocker Creek	801.710	2 miles 2 miles	Metal Pathogens	Unknown Non-point Source Unknown Non-point Source	Medium	01/03 – 01/05	City of Big Bear Lake County of San Bernardino
Grout Creek	801.720	2 miles 2 miles	Metal Nutrients	Unknown Non-point Source Unknown Non-point Source	Medium	01/02 – 01/05	City of Big Bear Lake County of San Bernardino
Rathbone Creek	801.720	2 miles 2 miles	Nutrients Sedimentation/Siltation	Snow Skiing Activities Unknown Non-point Source	Medium	01/02 – 01/05	City of Big Bear Lake County of San Bernardino
Mountain Home Creek, East Fork	801.700	1 mile	Pathogens	Unknown Non-point Source	Low	01/08 – 01/11	County of San Bernardino
Mountain Home Creek	801.580	4 miles	Pathogens	Unknown Non-point Source	Low	01/08 – 01/11	County of San Bernardino
Mill Creek, Reach 1	801.580	5 miles	Pathogens	Unknown Non-point Source	Low	01/08 – 01/11	Redlands County of San Bernardino
Mill Creek, Reach 2	801.580	8 miles	Pathogens	Unknown Non-point Source	Low	01/08 – 01/11	County of San Bernardino
Santa Ana River, Reach 4	801.270	12 miles	Pathogens	Non-point Source	Low	01/08 – 01/11	Colton, Rialto, Highland, Grand Terrace, Redlands, City of San Bernardino County of San Bernardino County of S.B. Dept. of Public Works
Lytle Creek	801.400	18 miles	Pathogens	Unknown Non-point Source	Low	01/08 – 01/11	City of San Bernardino County of San Bernardino County of S.B. Dept. of Public Works
Chino Creek, Reach 1	801.210	2 miles	Nutrients Pathogens	Agriculture Dairies Dairies Urban Runoff/ Storm Sewers	Medium Medium	01/00 – 01/05	Chino, Chino Hills, County of San Bernardino County of S.B. Dept. of Public Works
Chino Creek, Reach 2	801.210	10 miles	High Coliform Count	Unknown Non-point Source	Low	01/08 – 01/11	Chino, Chino Hills, County of San Bernardino, County of S.B. Dept. of Public Works
Cucamonga Creek, Valley Reach	801.210	13 miles	High Coliform Count	Unknown Non-point Source	Low	01/08 – 01/11	Ontario, Rancho Cucamonga, Upland, County of San Bernardino County of S.B. Dept. of Public Works

Federal regulations require that a total maximum daily load (TMDL) be established for each 303(d) listed waterbody for each of the pollutants causing impairment. The TMDL is the total amount of the problem pollutant that can be discharged while water quality standards in the receiving water are attained, i.e., water quality objectives are met and the beneficial uses are protected. It is the sum of the individual wasteload allocations (WLA) for point source inputs, load allocations (LA) for non-point source inputs and natural background, with a margin of safety. The TMDLs are the basis for limitations established in waste discharge requirements. TMDLs are being developed for all pollutants identified in Table 2. It appears that the stakeholders in this watershed are collaborating in the development of the TMDLs and the process seems to be working. To avoid any duplicative efforts, this permit does not include any further requirements based on TMDLs. However, this permit may be reopened to include TMDL implementation, if other implementation methodologies are not effective.

VI. FIRST AND SECOND TERM PERMITS; STORM WATER POLLUTION CONTROL PROGRAMS/POLICIES

Prior to EPA's promulgation of the final storm water regulations, the counties of Orange, Riverside and San Bernardino requested for areawide NPDES permits for storm water runoff. On August 29, 1990, the Regional Board issued Order No. 90-136 to the permittees (first term permit). In 1996, the Board adopted Order No. 96-32 (second term permit). First and second term permits included the following requirements as outlined in the storm water regulations:

1. Prohibited non-storm water discharges to the MS4s with certain exceptions.
2. Required the municipalities to develop and implement a drainage area management plan (DAMP) to reduce pollutants in urban storm water runoff to the maximum extent practicable (MEP).
3. Required the discharges from the MS4s to meet water quality standards in receiving waters.
4. Required the municipalities to identify and eliminate illicit connections and illegal discharges to the MS4s.
5. Required the municipalities to establish legal authority to enforce storm water regulations.
6. Required monitoring of dry weather flows, storm flows, and receiving water quality, and required program assessment.

The following programs and policies have been implemented or are being implemented by the permittees. During the first term permit, the permittees developed a Drainage Area Management Plan (1993 DAMP). The 1993 DAMP included a number of best management practices (BMPs) and a very extensive public education program. The monitoring programs for the first and second term permit included 10 monitoring stations within streams and flood control channels. The findings and conclusions from these monitoring stations and monitoring programs of other municipal permittees (Riverside and Orange Counties and others) have been used to identify problem areas and to re-evaluate the monitoring program and the effectiveness of the BMPs. The

future direction of some of these program elements will depend upon the results of the ongoing studies and a holistic approach to watershed management.

Other elements of the storm water management program included identification and elimination of illegal discharges & illicit connections and establishment of adequate legal authority to control pollutants in storm water discharges. The permittees have completed a survey of their storm drain systems to identify illegal/illicit connections and have adopted appropriate ordinances to establish legal authority. Some of the more specific achievements during the first and second term permits are as follows:

1. Interagency Agreements and Coordination: Established a program management structure through an interagency Implementation Agreement and established a Management Committee as an overall decision making body with designated representatives from each of the permittees. Participated in regional monitoring programs and focused special studies/research programs. Worked with other local and State agencies to provide a consistent urban storm water pollution control message to the public. Worked with Caltrans, other transportation agencies, Storm Water Quality Task Force, and others to further study and understand urban runoff problems and control measures.
2. Ordinances, Plans and Policies: Adopted Model Storm Drain Ordinance and Implementation Plan and Model Guidelines for New Development and Redevelopment; developed the Municipal Activities Pollution Prevention Strategy (MAPPS) which contains a complete list of BMPs for corporate yard activities and Criteria for MS4 Inspections.
3. Program Review: A number of existing programs were reviewed to determine their effectiveness in combating urban pollution and to recommend alternatives and/or improvements, including review and revision of CEQA Process and General Plan elements to address storm water quality issues, litter control measures, street sweeping frequencies and methods, public agency activities and facilities, illegal discharges and illicit connections to the MS4 systems, and existing monitoring programs. A public survey was conducted to determine the public's understanding of storm water pollution and prevention, and the effectiveness of the Storm Water Program's campaigns.
4. Public Education: A number of steps were taken to educate the public, businesses, industries, and commercial establishments regarding their role in urban runoff pollution controls. The industrial dischargers were notified of the storm water regulatory requirements. Gas/service stations were targeted and a fact sheet developed with BMP information. Business Recognition Programs were instituted as incentives for storm water management. Fact sheets, brochures, and flyers were developed and distributed to residents. The permittees also participated in radio and television advertisements, presentations at schools and participation in regional events to increase awareness of pollution prevention among the general public. A 24-hour hotline was established for reporting illegal dumping or any violations of the storm water program as well as to provide information regarding the storm water program. A website was completed

that highlights the storm drain system and storm water pollution prevention services offered by the San Bernardino County Storm Water Program, BMPs, "Adopt-A-Gutter" program, and contacts/links to other related resources.

5. Public Agency Training: Training was provided to public agency employees to implement New Development Guidelines and Public Works BMPs, how to conduct investigations of reported water quality problems, and how to conduct inspections of industrial facilities and public work projects. The municipal planners were trained to recognize water quality related problems in proposed developments.
6. Related Activities: Modified flood control facilities by channel stabilization, creation of a sediment basin and expansion of an existing basin, eliminated illegal connections and permitted and/or documented illicit connections to the MS4s.

VII. FIRST AND SECOND TERM PERMITS; WATER QUALITY IMPROVEMENTS

An accurate and quantifiable measurement of the impact of the above stated storm water management programs is difficult due to a variety of reasons such as the variability in chemical water quality data, the incremental nature of BMP implementation, lack of baseline monitoring data, and the existence of some of the programs and policies prior to initiation of formal storm water management programs. There are generally two accepted methodologies for assessing water quality improvements: (1) conventional monitoring such as chemical-specific water quality monitoring; and (2) non-conventional monitoring such as monitoring of the amount of household hazardous waste collected and disposed off at appropriate disposal site, amount of used oil collected, debris removed, etc.

The water quality monitoring data did not indicate any discernible trends or significant changes. However, the non-conventional monitoring data indicate that other programs and policies have been very effective in keeping a significant quantity of wastes from being discharged into waters of the US. It is expected that continuation of these programs and policies will eliminate and/or control pollutants in storm water runoff.

During the second term permit, there was an increased focus on watershed management initiatives and coordination among the municipal permittees in Orange, Riverside and San Bernardino Counties. These efforts resulted in a number of regional monitoring programs and other coordinated program and policy developments.

It is anticipated that with continued implementation of the management plan (ROWD) and other requirements specified in this order, the goals and objectives of the storm water regulations will be met, including protection of the beneficial uses of all receiving waters.

VIII. FUTURE DIRECTION/2000 ROWD

The NPDES permit renewal application describes the area-wide Storm Water Management Program for the third permit term and it includes programs and policies the permittees are proposing to implement during the third term permit. The 2000 ROWD is the principal guidance document for urban storm water management programs in San Bernardino County and includes the following major components:

1. Provides a framework for the program management activities and plan development.
2. Provides the legal authority to control discharges to the MS4s.
3. Improves current BMPs to achieve further reduction in pollutant loading to the MS4s.
4. Includes programs and policies to increase public education processes and to seek public support for urban storm water pollution prevention BMPs.
5. Ensures controls for new developments and significant redevelopments.
6. Ensures that construction sites implement appropriate pollution control measures.
7. Ensures that industrial sites are in compliance with storm water regulations.
8. Includes programs and policies to eliminate illegal discharges and illicit connections to the MS4s.
9. Includes continued monitoring of urban runoff.
10. Includes provisions for any special focus studies and/or control measures.

A combination of these programs and policies and the requirements specified in this order should ensure control of pollutants in storm water runoff from storm water conveyance facilities owned and/or controlled by the permittees.

IX. PERMIT REQUIREMENTS

The legislative history of storm water statutes (1987 CWA Amendments), US EPA regulations (40CFR Parts 122, 123, and 124), and clarifications issued by the State Water Resources Control Board (State Board, Orders No. WQ 91-03 and WQ 92-04) indicate that a non-traditional NPDES permitting strategy was anticipated for regulating urban storm water runoff. Due to economic and technical unfeasibility of full-scale end-of-pipe treatments and the complexity of urban storm water runoff quality and quantity, MS4 permits generally include narrative requirements for the implementation of BMPs in place of numeric effluent limits.

The requirements included in this order are meant to specify those management practices, control techniques and system design and engineering methods that will result in maximum extent practicable (MEP) protection of the beneficial uses of the receiving waters. The State Board (Orders No. WQ 98-01 and WQ 99-05) concluded that MS4s must meet the technology-based MEP standard and water quality standards (water quality objectives and beneficial uses). The U. S. Court of Appeals for the Ninth Circuit subsequently held that strict compliance with water quality standards in MS4 permits is at the discretion of the local permitting agency. Any requirements included in the order that are more stringent than the federal storm water regulations is in accordance with the CWA Section 402(p)(3)(iii), and the California Water Code Section 13377 and are consistent with the Regional Board's interpretation of the requisite MEP standard.

The Report of Waste Discharge (ROWD) included a discussion of the current status of San Bernardino County's urban storm water management program and the proposed programs and policies for the next five years (third term permit). This order recognizes the performance commitments made by the permittees for the third permit term in implementing the storm water regulations. Therefore, this order is less prescriptive compared to some of the other MS4 NPDES permits for urban runoff issued by other Regional Boards. However, it hopes to achieve the same or better water quality benefits because of the programs and policies already being implemented or proposed for implementation.

The major requirements include: (1) Discharge prohibitions; (2) Receiving water limitations; (3) Prohibition on illicit connections and illegal discharges; (4) Public and business education; (5) Adequate legal authority; (6) Programs and policies for municipal facilities and activities; (7) Inspection activities by the municipalities; (8) New development/re-development requirements; and (9) Monitoring and reporting requirements.

These programs and policies are intended to improve urban storm water quality and protect the beneficial uses of receiving waters of the region.

A. DISCHARGE PROHIBITIONS

In accordance with CWA Section 402(p)(3)(B)(ii), this order prohibits the discharge of non-storm water to the MS4s with a few exceptions. The specified exceptions are consistent with 40 CFR 122.26(d)(2)(iv)(B)(1). If the permittees or the Executive Officer determines that any of the exempted non-storm water discharges contain pollutants, a separate NPDES permit, a separate Waste Discharge Requirement or coverage under the Regional Board's De Minimis permit will be required.

B. RECEIVING WATER LIMITATIONS

Receiving water limitations are included to ensure that discharges from MS4 systems do not cause or contribute to violations of applicable water quality standards in receiving waters. The compliance strategy for receiving water limitations is consistent with the U.S. EPA and State Board guidance and recognizes the complexity of storm water management.

This order requires the permittees to meet water quality standards in receiving waters in accordance with U.S. EPA requirements as specified in State Board Order No. WQ 99-05. If water quality standards are not met from implementation of current BMPs, the permittees are required to re-evaluate the programs and policies and to propose additional BMPs. Compliance determination will be based on this iterative BMP implementation/compliance evaluation process.

C. ILLEGAL DISCHARGES AND ILLICIT CONNECTIONS TO MS4s

The permittees have completed their survey of the MS4 systems and eliminated or permitted all identified illicit connections. The permittees have also established a program to address illegal discharges and a mechanism to respond to spills and leaks and other incidents of discharges to the MS4s. The permittees are required to continue these programs to ensure that the MS4s do not become a source of pollutants in receiving waters.

D. PUBLIC AND BUSINESS EDUCATION OUTREACH PROGRAM

Public outreach is an important element of the overall urban pollution prevention program. The permittees have committed to implement a strategic and comprehensive public education program to maintain the integrity of the receiving waters and their ability to sustain beneficial uses. The principal permittee has taken the lead role in the outreach programs and has targeted various groups including businesses, industry, developers, utilities, environmental groups, institutions, homeowners, school children, and the general public. The permittees have developed a number of educational materials, have established a storm water pollution prevention hotline, started an advertising and educational campaign, and distribute public education materials at a number of public events. The permittees are required to continue these efforts and to expand public participation and education programs.

E. LEGAL AUTHORITY

Each permittee has adopted a number of ordinances, municipal codes, and other regulations to establish legal authority to control discharges to the MS4s and to enforce these regulations as specified in 40 CFR 122.26(d)(2)(I)(B, C, E, and F). The permittees are required to enforce these ordinances and to take enforcement actions against violators (40 CFR 122.26(d)(2)(iv)(A-D).

The enforcement activities undertaken by a majority of the permittees have consisted primarily of Notices of Violation, which act to educate the public on the environmental consequences of illegal discharges. In the case of the County, additional action has sometimes included recovery of investigation and cleanup costs from the responsible party. In the event of egregious or repeated violations, the option exists for referral to the County District Attorney for possible prosecution. In order to eliminate unauthorized, non-storm water discharges, reduce the amount of pollutants commingling with storm water runoff and thereby protect water quality, an additional level of enforcement is required between Notices of Violation and referrals to the District Attorney. Therefore, by November 15, 2003, the permittees are required to establish the authority and resources to administer either civil or criminal fines and/or penalties for violations of their local water quality ordinances (and the Federal Clean Water Act). The progress in establishing this program must be fully documented in the annual reports submitted by the permittees and the number, nature and amount of fines and/or penalties levied must be reported, beginning with the 2003/2004 annual report.

F. PUBLIC FACILITIES AND ACTIVITIES

Education of municipal planning, inspection, and maintenance staff is critical to ensure that municipal facilities and activities do not cause or contribute to an exceedance of receiving water quality standards. The second term permit required the permittees to develop and implement a Municipal Activities Pollution Prevention Strategy to address public agency facilities and activities that are not regulated under the State's General Industrial Activities Storm Water Permit. For the third term permit, the permittees are proposing to regroup the program elements into seven groups: (1) Sewage Systems; (2) Maintenance Areas and

Materials Storage Areas; (3) Landscape Maintenance; (4) Storm Drain Systems; (5) Streets and Roads; (6) Municipal Activities Pollution Prevention training; and (7) Training. Performance commitments are included in the ROWD for each of these seven groups. These commitments and other requirements to ensure water quality protection are included in this order.

G. MUNICIPAL INSPECTION PROGRAM

During the second term permit, the permittees focused on identifying industrial /commercial businesses in each permittee's jurisdiction and on developing education and outreach materials. The permittees also developed and implemented a storm water inspection program that utilizes existing inspection programs to check for storm water elements. This order requires the permittees to prioritize these facilities by a specified date, based on threat to water quality and prescribes a minimum inspection frequency for facilities based on this prioritization scheme.

This order requires the permittees to continue their inspection and enforcement of local ordinances for storm water violations at all construction sites including those covered under the Statewide General Construction Permit. This order further requires the permittees to prioritize these sites by a specified date, based on threat to water quality and prescribes a minimum inspection frequency for these sites based on this prioritization scheme.

H. NEW DEVELOPMENTS AND SIGNIFICANT REDEVELOPMENT

During the second term permit, the permittees developed Guidelines for New Development and Redevelopment. The permittees are required to implement these guidelines. Additionally, this order requires the permittees to work towards the goal of restoring and preserving the natural hydrologic cycles in approving urban developments. To accomplish this goal, the permittees have the option of using a number of methodologies. The permittees/project proponents may propose BMPs based on a watershed approach, establish a storm water pollution prevention fund for such regional solutions, or propose other innovative and proven alternatives to address storm water pollution. If a set of measures acceptable to the Executive Officer is not developed and approved by July 1, 2003, the permittees are required to use the numeric sizing criteria specified in this order. The numeric criteria are identical to the ones used by the San Diego Regional Board in its MS4 permit for permittees within the San Diego County area (Order No. 2001-01).

I. SANITARY SEWER LINE LEAKS, SEWAGE SPILLS AND SEPTIC SYSTEM FAILURES AND PORTABLE TOILET DISCHARGES

The permittees are required to determine if exfiltration from leaking sanitary sewer lines, sewage spills from blocked sewer lines, leaks and spills from sewer lines, improper use of portable toilets, and failing septic systems are causing or contributing to urban storm water pollution problems in their jurisdictions. If any of these is determined to be a problem, the permittees are required to develop and implement a plan to address these problems. In certain areas, the permittees

may not have any control over sanitary sewer systems. In such cases, the permittees are required to work with the sanitation district for the area to develop acceptable solutions to these problems.

The permittees have already developed a sewage spill response policy and, where appropriate, entered into agreements with the sanitation districts for responding to sewage spills in a timely manner.

The Regional Board may consider issuing a separate Waste Discharge Requirement to address sanitary sewer overflows.

J. MONITORING REQUIREMENTS

During the first and second term permits, the permittees conducted system characterization, BMP evaluation, and storm water discharge, and receiving water monitoring. These early programs focused on identifying pollutants, estimating pollutant loads, tracking compliance with water quality objectives, and identifying sources of pollutants. The San Bernardino County monitoring programs as well as other monitoring programs nationwide have established that there is a high degree of uncertainty in the quality of storm water runoff and that there are significant variations in the quality of urban runoff spatially and temporally. However, most of the monitoring programs to date have indicated that there are a number of pollutants in urban storm water runoff. A definite link between pollutants in urban runoff and beneficial use impairments has been established only in a few cases.

In 2000, the permittees re-evaluated their monitoring program and proposed a revised monitoring program. The overall goal of the proposed Monitoring Program is to provide information in support of effective implementation of the areawide storm water program. The monitoring program goals are to evaluate BMP effectiveness, identify key pollutants of concern and their sources, evaluate impacts from urban runoff sources to local receiving waters, and participate in regional monitoring and research programs.

To accomplish these goals, the monitoring program focuses on the following areas:

1. Characterization and mapping of drainage area including identification of pollutants of concern;
2. BMP effectiveness studies to evaluate the usefulness of sedimentation basins and other available technologies for storm water pollution prevention;
3. Receiving water monitoring. Selected sites will be monitored for key chemical and physical constituents, focusing on sites upstream and downstream of the urbanized area on the Santa Ana River and Cucamonga Creek;
4. Additional monitoring to provide bacteriological data in cooperation with Riverside County;

5. Source identification to identify sources of pollutants of concern; and
6. Data analysis using statistical methods.

Historical wet weather monitoring has shown elevated pollutant concentrations at monitoring Sites 2, 3 and 5. Using wet weather monitoring data from 1994-99, the 2000 ROWD identified Site 5 to have the highest average concentration for BOD, copper, zinc, and TSS while Site 3 has the highest average concentrations for nitrate and phosphorus. First flush data from the 1999-2000 monitoring events showed elevated levels consistent with prior years' data for Sites 2, 3, and 5.

The permittees are required to continue first flush monitoring at storm drain monitoring Sites 2, 3, and 5 and focus source identification and control efforts at these locations pending approval of an integrated watershed monitoring program.

The permittees also participate in a number of other regional monitoring programs such as the Southern California Coastal Water Research Project's (SCCWRP) Storm Water Monitoring / Research Cooperative Program.

The permittees are encouraged to continue their participation in regional and watershed-wide monitoring programs. By July 1, 2003, the permittees are required to re-evaluate their Water Quality Monitoring Program and submit a revised plan for approval. The revised integrated watershed monitoring program will identify data gaps from previous and other monitoring efforts, aim to attain the above-mentioned objectives and will incorporate statewide requirements for municipal storm water monitoring programs.

X. WATER QUALITY BENEFITS/COST ANALYSIS/FISCAL ANALYSIS

There are direct and indirect benefits from clean beaches, clean water, and clean environment. It is difficult to assign a dollar value to the benefits the public derives from fishable and swimmable waters. In 1972, at the start of the NPDES program, only 1/3 of the U.S. waters was swimmable and fishable. In 2001, 2/3 of the U.S. waters meets these criteria. In the 1995 "*Money*" magazine survey of the "Best Places to Live," clean water and air ranked as the most important factors in choosing a place to live. Thus, environmental quality has a definite link to property values. Clean lakes and beaches and other water recreational facilities also attract tourists.

The true magnitude of the urban runoff problem is still elusive and any cost estimate for cleaning up urban runoff would be premature short of end-of-pipe treatments. For urban storm water runoff, end-of-pipe treatments are cost prohibitive and are not generally considered as a technologically feasible option. Over the last decade, the permittees have attempted to define the problem and implemented best management practices to combat the problem. The costs incurred by the permittees in implementing these programs and policies are available.

The area-wide program is funded by the permittees. The principal permittee prepares an annual budget for the Management Committee. The principal permittee allocates 95 percent of the approved budget costs to the co-permittees based on percentage calculated using the cost allocation formula defined in the Implementation Agreement. The area-wide program activities include: overall storm water program coordination; intergovernmental agreements; representation at the Storm Water Quality Task Force,

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Regional Board/State Board meetings and other public forums; preparation and submittal of compliance reports and other reports required under the NPDES permits; responding to Water Code Section 13267 requests; budget and other program documentation; and coordination of consultant studies, co-permittee meetings, and training seminars. For the 2001-06 permit term, the projected average annual area-wide budget is about \$650,000. The overall costs increased from \$2.50M in 1996-2001 to \$3.25M in 2001/06.

The permittees identified the following budget for Fiscal Year (2001/02):

EXPENDITURE ITEMS	AMOUNT (\$)	PERCENTAGE
Annual NPDES Permit Fee	10,000	1.25
Monitoring Program	150,000	18.75
Public Education Program	350,000	43.75
Consultant Costs	50,000	6.25
Administration	170,000	21.25
Participation in Statewide NPDES Issues	40,000	5.00
Contingency	30,000	3.75
Total	800,000	100.00

XI. ANTIDegradation Analysis

The Regional Board has considered whether a complete antidegradation analysis, pursuant to 40 CFR 131.12 and State Board Resolution No. 68-16, is required for the storm water discharges. The Regional Board finds that the pollutant loading rates to the receiving waters will be reduced with the implementation of the requirements in this order. As a result, the quality of storm water discharges and receiving waters will be improved, thereby protecting the beneficial uses of waters of the United States. Since this order will not result in lowering of water quality, a complete antidegradation analysis is not necessary, consistent with the federal and state antidegradation requirements. .

XII. PUBLIC WORKSHOPS

The Regional Board recognizes the significance of San Bernardino County's Storm Water/Urban Runoff Management Program and will conduct, participate, and/or assist with any workshop during the term of this permit to promote and discuss the progress of the storm water management program. The first public workshop regarding this draft order was conducted at the September 26, 2001 Board meeting held at the City of Corona Council Chambers. The second public workshop is scheduled for the December 7, 2001 Board meeting to be held at the City of Loma Linda, 25541 Barton Road, Loma Linda, CA. The details of the workshop will be mailed to interested parties. Persons wishing to be included in the mailing list for any of the items related to this permit may register their name, mailing address and phone number with the Regional Board office at the address given below.

XIII. PUBLIC HEARING

The Regional Board will hold a public hearing regarding the proposed waste discharge requirements. The public hearing will be scheduled at a later date and all interested parties will be notified. Further information regarding the conduct and nature of the public hearing concerning these waste discharge requirements may be obtained by writing or visiting the Santa Ana Regional Board office, 3737 Main Street, Suite 500, Riverside, CA 92501-3339. This and other information are also available at the website at: www.swrcb.ca.gov/rwqcb8

XIV. INFORMATION AND COPYING

Persons wishing further information may write to the above address or call Mr. Muhammad Bashir at (909) 320-6396. Copies of the application, proposed waste discharge requirements, and other documents (other than those which the Executive Officer maintains as confidential) are available at the Regional Board office for inspection and copying by appointment scheduled between the hours of 10:00 a.m. and 4:00 p.m., Monday through Friday (excluding holidays).

XV. REGISTER OF INTERESTED PERSONS

Any person interested in a particular application or group of applications may leave his/her name, address, and phone number as part of the file for an application. Copies of tentative waste discharge requirements will be mailed to all interested parties.

XVI. RECOMMENDATIONS

Adopt Order No. 01-16, NPDES No. CAS618036, as presented.

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In addition to the dischargers, comments were solicited from the following agencies and/or persons:

U.S. Environmental Protection Agency - Terry Oda/Eugene Bromley, Permit Issuance Section

U.S. Army District, Los Angeles, Corps of Engineers - Permits Section

NOAA, National Marine Fisheries Service

U.S. Fish and Wildlife Service - Carlsbad

State Water Resources Control Board – Jorge Leon/Elizabeth Miller Jennings, Office of the Chief Counsel

State Water Resources Control Board - John Youngerman/ Bruce Fujimoto, Division of Water Quality

State Department of Water Resources - Glendale

California Regional Water Quality Control Board, North Coast Region (1) - John Short

California Regional Water Quality Control Board, San Francisco Bay Region (2) - Dale Boyer

California Regional Water Quality Control Board, Central Coast Region (3) - Jennifer Biting

California Regional Water Quality Control Board, Los Angeles Region (4) - Wendy Philips

California Regional Water Quality Control Board, Central Valley Region (5) - Geroge D. Day

California Regional Water Quality Control Board, Central Valley Region (5R), Redding - Carole Crowe

California Regional Water Quality Control Board, Central Valley Region (5F), Fresno - Jarma Bennett

California Regional Water Quality Control Board, Lahonton Region (6SLT), South Lake Tahoe - Mary Fiore-Wagner

California Regional Water Quality Control Board, Lahonton Region (6V), Victorville - Gene Rodash

California Regional Water Quality Control Board, Colorado River Basin Region (7) - Abdi Haile/Pat Garcia

California Regional Water Quality Control Board, San Diego Region (9) - Bob Morris

State Department of Fish and Game - Long Beach

State Department of Health Services - San Bernardino

State Department of Parks and Recreation

South Coast Air Quality Management District, Diamond Bar

Orange County Environmental Management Agency, Environmental Resources Division

- Christopher Crompton/Karen Ashby Orange County Environmental

Management Agency, Department of Public Works, Flood Programs - Herb Nakasone

San Bernardino County Flood Control District - Naresh Varma

Caltrans, District 8, San Bernardino - Paul Lambert

Southern Pacific Railroad

Atchison, Topeka & Santa Fe Railway Company

U.S. Department of the Air Force, March Air Force Base

Camp Dresser and McKee - Jeff Endicott

Building Industry Association - Tim Piasky

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L.A. County Department of Public Works - Mustafa Ariki
U.S. Department of Agriculture - Forest Services, San Bernardino County National
Forest

Environmental Organizations

Sierra Club, San Geronimo Chapter
Natural Resources Defense Council (NRDC) - David Beckman
Tri-County Conservation League - Press Enterprise - Gary Polakovic
Santa Ana Watershed Project Authority - Joseph Grindstaff
Orange County Water District - Bill Mills
Metropolitan Water District - George Muse
Western Municipal Water District - Don Harriger
San Bernardino Valley Municipal Water District
Southern California Association of Governments, Los Angeles
Inland Empire West Resource Conservation District - General Manager
Big Bear Municipal Water District - General Manager
Inland Empire Utilities Agency - General Manager
Cucamonga County Water District - General Manager
East Valley Water District - General Manager
Monte Vista Water District - General Manager
West San Bernardino County Water District - Butch Araiz
Yucaipa Valley Water District - General Manager

Hospitals (Administrator)

Bear Valley Community Hospital
Chino Community Hospital
Doctors Hospital
Kaiser Foundation Hospital
Loma Linda Community Hospital
Loma Linda University Medical Center
Mountains Community Hospital
Ontario Community Hospital
Patton State Hospital
U.S. Department of Veterans Affairs - Memorial Veterans Medical Center
Redlands Community Hospital
St. Bernardine Medical Center
San Antonio Community Hospital
San Bernardino Community Hospital
San Bernardino County Hospital

Universities and Colleges (Chancellor)

California State University - California State University San Bernardino
San Bernardino Community College District - Chaffey College Campus
San Bernardino Community College District - Crafton Hills College Campus
San Bernardino Community College District - San Bernardino Valley College Campus
University of Redlands
Loma Linda University

School Districts (Superintendent)

Alta Loma Elementary School District
Bear Valley Unified School District
Central Elementary School District
Chaffey Joint Union High School District
Chino Unified School District
Colton Joint Unified School District
Cucamonga Elementary School District
Etiwanda Elementary School District
Fontana Unified School District
Mountain View Elementary School District
Mt. Baldy Joint Elementary School District
Ontario-Montclair Elementary School District
Rialto Unified School District
Rim of the World Unified School District
Redlands Unified School District
San Bernardino City Unified School District
Upland Unified School District
Yucaipa Joint Unified School District

Permittees

City of Big Bear Lake - Brian Gengler
City of Chino - David Crosley
City of Chino Hills - John Mura
City of Colton - Kathy Kivley
City of Fontana - Curtis Aaron
City of Grand Terrace - John Donlevey
City of Highland - Larry Williams
City of Loma Linda - Dennis Barton
City of Montclair - Mario Orioli
City of Ontario - Glen Stott
City of Rancho Cucamonga - Bob Zetterberg
City of Redlands - Tom Fujiwara
City of Rialto - Bruce Cluff
City of San Bernardino - Michael Grubbs
City of Upland - Steve Gapuzan
City of Yucaipa - Fred Hawkins
San Bernardino County Transportation/Flood Control Department - Naresh Varma
San Bernardino County - Jim Squire